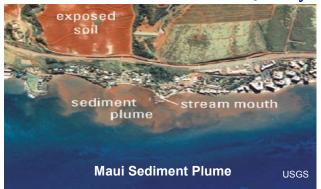
#### **Shoreline Erosion & Water Quality**



#### Sea Level Rise Projection: Waikiki



In Hawai'i, sea level rise resulting from climate change is of particular concern. The physical effects of sea level rise fall into 5 categories:

- Marine inundation of low-lying developed areas including coastal roads;
- 2. Erosion of beaches and bluffs;
- 3. Salt intrusion into aquifers and surface ecosystems;
- 4. Higher water tables; and
- 5. Increased flooding and storm damage due to heavy rainfall.

#### **Preserving Cultural Heritage**

The CZM Act declares that it is national policy for states to achieve wise use of the land and water resources of the coastal zone, giving full consideration to ecological, cultural, historic and esthetic values.



Huki means pull and lau means leaf. Long ropes were hung with leaves and moved through the water, frightening the fish into a large net which was then pulled ashore. The fish were divided among all those who helped.

#### **Connecting Land and Sea**



The Hanalei is an American Heritage River. The Hanalei Watershed Hui implements a Watershed Action Plan focused on the mauka/makai connection.

#### For More Information:

MACZAC, Hawai'i CZM Program
P.O. Box 2359, Honolulu, HI 96804
(808) 587-2800 info@maczac.org
http://www.maczac.org



# Marine and Coastal Zone Advocacy Council (MACZAC)

Ke Kahu O Na Kumu Wai



Ua mau ke ea i ka 'aina i ka pono.



# MACZAC Members & CZM Program Staff



#### **Authority**

The Hawai'i Coastal Zone Management Program (CZM Program), a federally approved program created in response to the national CZM Act of 1972, was formally adopted by the State legislature in 1977 (Act 188). Hawai'i Revised Statutes Chapter 205A, the Hawai'i CZM law, designated the Office of Planning (OP) as the lead agency for the Hawai'i CZM Program which is attached to DBEDT for administrative purposes.

MACZAC was established (HRS §205A-3.5) as a public advisory body to support the lead agency (OP, CZM Program) by "...providing advice regarding marine and coastal zone management planning, coordination, and facilitation of functions of the CZM Program."

#### **Responsibilities & Goals**

- Evaluate the state CZM Program, including activity of the network agencies, and make recommendations for improvements;
- Advocate support for the program to the public and the executive and legislative branches of government;
- Advocate, provide for, and act upon citizen input;
- Work toward the implementation of an integrated and comprehensive management system for marine and coastal zone resources.

#### **Focus Issues**

#### **Coastal Hazards**

Shoreline erosion
Tsunamis
Hurricane and flood control
Shoreline development
Building codes and SMA permits
Sea level rise
Carrying capacity

#### **Place or Community-Based Management**

Community involvement
Community capacity building
Ecosystem-based fisheries management
Hawaiian fishponds and salt ponds
Aquaculture

#### **Land-Based Pollution**

Soil erosion
Upland forest management

### **Place-Based Management**



Kawainui Marsh is an example of a critical Hawaiian wetland; it is also the largest existing wetland in Hawai'i, encompassing 850 acres from Maunawili Valley toward Kailua Bay. Kawainui was developed as a 450 acre fishpond by the Hawaiians who settled the Kailua ahupua'a. It was designated a Wetland of International Importance by the Ramsar Convention in 2005.

## Hawai'i Ocean Resources Management Plan (ORMP)

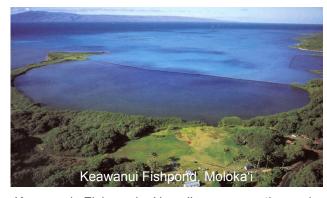
The ORMP builds on traditional ahupua'a management principles by recommending a plan to address three perspectives of contemporary resource management.

- 1. Connecting Land and Sea
- 2. Preserving Our Ocean Heritage
- 3. Promoting Collaboration and Stewardship

This plan is available online at <a href="http://hawaii.gov/dbedt/czm/ormp/ormp.php">http://hawaii.gov/dbedt/czm/ormp/ormp.php</a>

MACZAC utilizes the ORMP to organize its focus and effort.

# **Fishpond Restoration**



Keawanui Fishpond: Hawaiians were the only people in Polynesia to use rock structures to farm the ocean (aquaculture); others created only fish traps. Hawaiians were able to double the production of the reefs and have fish available at the call of the ali'i no matter what the weather. Today these 700 year old cultural treasures are being restored as valuable private property in the ocean to insure our food security capabilities.